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Uwagi o faunie herpetologicznej Polski

Заметки о герпетологической фауне Польши

Remarks on the herpetological fauna of Poland

Earlier data from the past century as well as newer ones pertaining to the appearance in Poland and the geographical distribution in this country of some species of amphibians and reptiles induced me to concentrate on such species which cause considerable doubts as to their presence in Poland, or else the data as to their distribution in this country are inexact.

Triturus alpestris LAUR. The geographical range of this species comprises in Poland the Carpathians and Sudetians; moreover, it is known also beyond these mountains from some localities in Lower Silesia (PAX, 1925), from the district Kielce (ROSZKOWSKI, 1913; SUMIŃSKI, 1914; PONGRÁCZ, 1923; FEJERVÁRY, 1923; BAYGER, 1937). The last author quotes this species from an altitude of 100 m above sea-level in Silesia; he also ascertained its presence far from the Carpathians on the Opole highland (Ukrainian SSR). To these extramontanic finding-places of *Triturus alpestris* LAUR. I may add a new one in the forest of Dulowa near Trzebinia to the west of Kraków, where I found this newt on May 3rd, 1953 (FUDAKOWSKI, 1954). This new finding-place of a Alpine newt is

situated in the vistulan lowland in a moist environment, locally even peaty; I ascertained the presence of several females and males of this species in a wayside ditch (the evidence specimen is in the collection Kraków branch of the Zoological Institute, Polish Academy of Science,). It is very possible that the finding-place of this amphibian in this ditch has been destroyed during road-building work (comprising digging of new ditches). Nearer data as to the biological character of the environment were given by me in a note published in „Wszechświat" (Fudakowski, 1954). There, too, I drew attention to the appearance in a very near vicinity of *T. alpestris* Laur. of two typical lowland species of newts, *T. cristatus* Laur. and *T. vulgaris* L.

The co-existence of *T. alpestris* Laur. with other species of newts in the same reservoir was mentioned by Poliński (1913); Horbulewicz (1927) also notes the phenomenon. Jeziorański provided me with specimens of Alpine and common newts (*T. vulgaris* L.) originating from the same waterhole in the environs of Limanowa, at an altitude of about 700 m above sea-level. The presence of *T. alpestris* Laur. in one waterhole with lowland species of newts is known from the French-Belgian border, where this newt lives in a mostly hilly landscape together with *T. cristatus* Laur., *T. vulgaris* L., and *T. palmatus* Schneid.

The character of the finding-places of the Alpine newt in the district Kielce is not exactly known, i. e. whether they are relict maybe post-glacial locations or else their formation should be ascribed to a much younger migration of this species from mountain environments into the lowlands, or hill-land. The finding-place of *T. alpestris* Laur. near Dulowa is probably very new, as it may owe its origin to river transport of this amphibian from the Western Beskid Mts.; neither the river Wisła (Vistula) nor river Soła are too off that finding-place of this newt in the forest of Dulowa. Schreiber (1912) mentions this sort of water transport of newts.

Bayger (1909) writes what follows on the vertical distribution of *T. alpestris* Laur.: (translated) „In the whole chain of the Carpathians and Tatry Mts. up to 2000 m". In respect to a range of this newt so high up in our mountains I may only remark that I collected it in the Tatry Mts. in small ponds

in the Gąsienicowe Lakes' Valley at an altitude of about 1600 m above sea-level. In the Czarnohora range (Eastern Carpathians) I met it up to 1400 m (FUDAKOWSKI, 1935). I think its presence in the Tatra Mts. problematic above 1600 m, considering the hydrography (absence of adequate waterholes) as well as the climate.

Salamandra salamandra L. This amphibian is locally common in the Carpathians, but chiefly at lesser altitudes, as e. g. near Rabka and Raba Wyżna. BAYGER (1909) writes: (translated) „In the whole Carpathians and Tatry Mts. very numerous up to an altitude of 1800 m". I cannot agree with this enunciation, at least in regard to the Western Beskid Mts. and the Tatry Mts. I met a salamander in the Tatry Mts. only once in 30 years (a young specimen, Cyhrla Toporowa, about 1000 m above sea-level). T. KOMORNICKI told me that in the years 1949—1956 he met a spotted salamander in the Tatry Mts. only twice — on the „Popod Regle" path near Strążyska Valley, 900 m above sea-level, and in the upper part of the same valley, about 1100 m alt. (verbal communication). However, BAYGER (1937) says that probably it does not transgress an altitude of 1000 m in the Carpathians [1]. The spotted salamander reaches about 1250 m above sea-level in its vertical range in the Alps, which is in accord with its biological character defined by PAX (1921) as „montane", i. e. a rather not typical mountain form, but one of hilly regions and mountains of moderate height. JUSZCZYK and SZARSKI (1950) write that this salamander goes down only to 500 m altitude — this is not exact, as TENENBAUM (1913) [2] found it forty years ago near Biłgoraj, from where it is quoted by PONGRÁCZ (1923) and FEJERVÁRY (1923); URBAŃSKI (1947)

[1] NOWICKI (1868) mentions larvae of the salamander provided with gills living in Lake Toporowy (1095 m alt. in the Tatra Mts.); MINKIEWICZ (1914) quotes it from the same waterhole, probably after NOWICKI. In spite of my very frequent visits to this lake, in various seasons — spring, summer, autumn — I never saw larvae of the salamander there, again, very numerous larvae of *T. alpestris* LAUR.

[2] The finding of the salamander in the region of Biłgoraj by S. TENENBAUM should not cause doubt. Its appearance there is not impossible, as this amphibian occurs „island" — wise in hilly regions and even in lowlands, where adequate water environments exist.

mentions it in the district Lublin; Skalski (1953) found it near Chrzanów, S. S. (Stanisław Skowron, 1953) met it in Raciborowice near Kraków, and Ferens (1950) mentions it from Ojców. It results from the above data that the distribution of the spotted salamander comprises also regions lying much lower than 500 m above sea-level.

Salamandra atra Laur. In the earlier zoological literature we find mentions on the existence of this alpine amphibian in Poland. Pietruski (1847) quotes the black salamander from the Stryj Carpathians (i. e. Ukrainian SSR); Wajgiel (1867) writes that he possessed a young specimen of the black salamander from the environs of Dubiecko near Przemyśl. Nowicki (1867) quotes it after Wajgiel. Also Udziela (1910) names this amphibian as appearing in Poland, but Bayger (1909) cancels it from the list of Polish amphibians. The black salamander, according to Pražak (1898) who bases on earlier papers by Prach and Amerling, should apparently occur in the „Silesian-Moravian" mountains, but does not exist in the proper Bohemia. Pražak also says that, according to Bayger, this amphibian is supposed to appear in the Sudetians and the Böhmer Wald Mts. The same author nevertheless counts *S. atra* Laur. to the Czech fauna on the base of three specimens obtained from the Karkonosze Mts. (Riesengebirge), originating from Mummelfall[3]. Schreiber (1912) thinks that all earlier data on the existence of *S. atra* Laur. in the Sudetians and Carpathians need corroboration, and that its appearance there in general is improbable. Bayger (1937) says that *S. astra* Laur. — according to Schreiber (1912) — is acclimatised in the Sudetians. As to the data of Wajgiel (l. c.) we may suppose that he could have determined his young specimen erroneously, as it is known that juvenile specimens of *S. salamandra* L. show the yellow blots only later or have them darkened more or less — thus it is not impossible that Wajgiel had in his hands a juvenile specimen of the spotted salamander, not of the black one. Pražak (1898)

[3] River Mummel is an affluent of the Upper Iser, and the locality Mummelfall lying on the Mummel is to the east of Harrachsdorf. It was not possible to find the Czech names of these units.

possessed a small specimen of the spotted salamander, very dark, which he had determined earlier as *S. atra* LAUR. The specimen of the spotted salamander, measuring some 10 cm in length, found by me on Cyhrla Toporowa (± 1000 m) in the Tatra Mts. under a wayside stone, showed a very restricted spottiness, and the yellow blots were strongly darkened in places by black pigment. In summer 1939 I found in the Jabłonków chain of the Carpathians in southern Silesia under the summit of Mt. Wielki Połom a freshly metamorphosed specimen of the spotty salamander with a very feebly visible yellow design. These data seem to confirm my supposition that WAJGIEL had a specimen of the spotty salamander.

Basing on all said above, we cannot count *S. atra* LAUR. to the fauna of Poland, all the more so because MERTENS and MÜLLER (1940) distinctly give the distribution of *S. atra* LAUR. as comprising the Alps, the „Fiume Karst", Herzegowina, and Albania, saying nothing on the Carpathians or the Sudetians.

Lacerta viridis L. The appearance in Poland of this species of lizard caused and still causes doubts in some of our zoologists. It is mentioned by TACZANOWSKI (1877); WAŁECKI (1883) writes on this species (page 352) what follows: (translated) „...I have no news on it, either from the region of Kraków or in general from western Galicia; the middle course of the Vistula, which I know better, where the region seems so profitable for it, gave the national collection not one specimen testifying its appearance in these parts. Only below Warszawa, in a distance of five miles" (5 Polish miles = 37,5 km) „on the left bank of the Vistula, vis-à-vis of Zakroczym, in the so-called Kampinos Forest, a colony of this most beautiful of our lizards was found some forty years ago [4] by the meritorious investigator of our country JASTRZĘBOWSKI who deposited the specimens gathered there in the Warsaw Zoological Cabinet. Later excursions to this place ascertained several times its presence there, and 26 years ago [5] Prof. ALEKSANDROWICZ bred for some time a pair derived from this place until

[4] that is about the year 1843.

[5] that is in 1857.

he obtained several eggs which, however, were devoured at once. ...Twenty years ago[6] I received from Mr. GAUGER ... two lizards conserved in alcohol which were taken in the environs of Płock[7]". WAŁECKI also had verbal information on the appearance of the green lizard in the environs of Ciechocinek, but treats this information as uncertain.

It is difficult to suppose an error in the determination of the specimens of the green lizard from Kampinos Forest, to take them to be specimens of the agile lizard (*L. agilis* L.) in nuptial attire. The evidence specimens do not exist, as well as the catalogue data, therefore there is no possibility of controlling the determinations; however, WAŁECKI's determination may be taken for correct. The specimens of the green lizard were taken in 1843 and 1857, that is, were caught in the Kampinos Forest 113 and 99 years ago — during this time a progress of agriculture or silviculture may have destroyed the biotope and caused the extinction of *L. viridis* L. in this region. As to the specimens of this lizard from the environs of Płock we can say nothing as we have no data concerning them except a generally defined place of provenience. WAŁECKI (l. c.) also mentions the occurrence of the green lizard near Gdańsk, with no further data. BAYGER (1909) quotes it only from the ravine of the river Dniestr in the Ukrainian SSR. SUMIŃSKI (1913) mentions this species from three localities: environs of Płock, Kampinos Forest (after WAŁECKI), and the district Lublin (after TENENBAUM, 1913).

We possess, however, much more freshly dated facts on the occurrence of *L. viridis* L. in the limits of Poland. Dr. PONGRÁCZ, (1923), warden of the natural history museum of Budapest, deceased during World War II, sojourned in

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[6] that is in 1863.

[7] Concerning the specimens of *L. viridis* L. quoted by WAŁECKI, I applied for information to the Zoological Institute, Polish Academy of Science, Warszawa, whether these specimens are in the Institute's collection. The reply was that the specimens are not in the collection and that no mention on them whatever was found in the rests of the pre-war catalogue saved from the fire of the onetime State Zoological Museum, partially burned by the Germans in 1944.

Poland[8] during World War I and gathered zoological collections in many regions. He caught specimens of *L. viridis* L. near Busko and Św. Katarzyna (district Kielce); they were examined by a specialist in herpetology, FEJERVÁRY (1923). The specimens were in the mentioned museum in Budapest, namely: 1 ♂ sen. and 2 ♀♀ from Busko, number MHR Nr. 2724/21 [9] and 2724/13, and a young specimen from Św. Katarzyna MHR Nr. 2724/9. Thus a specialist examined specimens of the green lizard from Poland and these specimens were in museal collections; therefore the nativeness of this species in the Polish fauna should be recognised on this base, so much the more that this is corroborated by data 113 and 99 years old, notwithstanding the impossibility of the latter's verification. It is not easy to refuse accuracy to the determinations of WAŁECKI, and all the more to those of FAJERVÁRY. KUNTZE and NOSKIEWICZ (1925) are of the opinion that the finding-places of *L. viridis* L. in Poland near Busko and Św. Katarzyna belong to the numerous „island"-like colonies of this species found in Central Europe and reaching the Baltic Sea. The opinion of the two zoologists confirms my supposition emitted above that the green lizard may be regarded as belonging to the fauna of Poland. Again, BAYGER (1937) thinks that the data on *L. viridis* L. in Poland need corroboration. Investigations are necessary which would bring evidence specimens and more exact data on the distribution of this reptile in our country.

HECHT (1928) writes on page 247/247 on *L. viridis* L.: „Bewohnt die Donauländer und die Karpathen ... ist in Südböhmen, Mähren, Mittel- und Südpolen zu finden...". HECHT draws the southern limit of this species from Kraków through Łódź and Piła (then Schneidemühl) and „nördliche und südliche

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[8] At the time the name „Poland" was used (especially by foreigners) only for the territory formerly annexed by Russia, also called „Congress Kingdom" — contemporary east-central Poland, then belonging to Russia after the Vienna Congress, 1815.

[9] MHR stands for „Museum Hungaricum Reptilia". We regret sincerely that the Hungarian Museum of Natural History in Budapest has been partially burnt during the events of October 1956. The herpetological collections of this Museum does'nt exist any more.

Mark". He draws attention to the absence of this lizard between southern Bohemia and the northern (Brandenburg) Mark, and considers the „islands" of *L. viridis* L. in the northern Mark as formed by the immigration of this species from colonies placed in „Polnische Berglanden", which could be indicated by finding-places of this species in the former Eastern Prussia tand Pomerania. The north-eastern limit of distribution of this lizard, according to HECHT, runs from Toruń up with the Vistula to Warszawa, from there in a straight line to Kiev and further to the Azov sea. I may remark what follows on the correctness of these limits:

1. What is the origin of the data on the appearance of *L. viridis* L. in the Carpathians? Does this pertain to the northern or southern Carpathians, or else to the whole chain of mountains?

2. And if it pertains to the northern Carpathians, then to their northern or southern slopes? anyhow, such vague definitions cannot be accepted — if even the green lizard exists in the northern part of the Carpathian chain running parallel-wise, it does not exist on the northern slopes, from the Czarnohora group in the east to the Silesian Beskides in the west; its presence could be probable only on the southern slopes. If even *L. viridis* L. appears to the south of the northern Carpathians an the Slovakian hill-foreland, even then the term „Karpathen" is inadmissible as too vague and incompatible with the real state of things.

3. HECHT draws the south-western limit of distribution of *L. viridis* L. in Poland through Kraków, Łódź, and further northwest. The limit on the line Kraków—Łódź is quite arbitrary; it is based on no proofs whatever, moreover, this species is absent in the environs of Kraków as well as in those of Łódź — that is, the data are negative. The mention of the green lizard by FEJERVÁRY (1923) from the region of Olkusz does not mean at all its occurrence near Kraków, and its appearance near Łódź is not founded otherwise. The presence of *L. viridis* L. in the xerothermic conditions near Olkusz (from where it is mentioned by FEJERVÁRY) could be possible, but needs exact verification. Therefore, if HECHT supposes the existence of the green lizard near Olkusz and Busko, why

draw the southern limit of its range in Poland near Kraków? This is inadmissible, it proves an incomplete study and an uncritical review of the material. Thus, according to HECHT, the range of *L. viridis* L. in Poland would take the form of a tongue, narrowing from south-east to north-west, reaching its colonies near river Odra in Bielinek and near Toruń on the Vistula, that is to two finding places which should indispensably be verified as not quite sure.

4. The north-eastern limit, as HECHT draws it, runs from Toruń up the Vistula to Warszawa and farther eastwards to Kiev. The direction to Warszawa has its grounds in the data of WAŁECKI from the second hald of the past century (environs of Płock and Kampinos Forest); however, we dispose of too little data to say if its direction to the east taken from Warszawa is based on facts — except TENENBAUM's mention (1913) on the green lizard in county Biłgoraj (district Lublin). An answer to this question may be given only by investigations performed in the districts Kielce and Lublin. Before sufficiently numerous evidence material be obtained, the distribution of *L. viridis* L. in Poland should be drawn as separate „islets" eventually existing on xerothermic biotopes.

As *L. viridis* L. appears in Brandenburg in „island" xerothermic colonies near our western frontier (Oderberg), its presence in central-Polish xerothermic biotopes cannot be excluded. To ascertain its presence in such environments on the river Nida, in the environs of Olkusz and Busko, and eventually on the Roztocze Highland, would be a valuable completion of the interesting zoogeographical discoveries of „warm" faunistic elements which were found by the scientific workers of the Zoological Institute, Polish Academy of Science, Warszawa. It would be worth while to direct our attention to the nearly quite unknown faunistically xerothermic areas near Sandomierz and in the forks of the rivers Vistula and San, where on sandy, strongly insolated places RAZOWSKI (1953) ascertained the presence of the praying mantis (*Mantis religiosa* L.).

Lacerta muralis LAUR. The mural lizard was „heard of" to live in Poland but — if I know — none of our Polish zoologists ever found specimens of this species. Only FEJERVÁRY

(1923) basing on the data of Pongrácz (1923) introduced it into the Polish fauna list. According to Pongrácz this lizard would live in southern „Poland“, i. e. the Hungarian zoologist caught it in the southern parts of the former „Congress Kingdom“ (see foot-note 8). The material to Fejerváry's disposition was collected in following localities: 1 ♂ ad. „Słowik Gebirge bei Kielce“ 1917 (MHR Nr. 2724/15), 1 ♀ ad. from Busko from a loess ravine 1918 (MHR Nr. 2724/22), 3 ad. and sen. ♂♂ and 3 sen. and immature ♀♀ between Trzebinia and the frontier (Maczki) 1918 (MHR Nr. 2724/16), as well as 1 ♂ ad. and 3 sen. or ad. ♀♀ from the environs of Puławy, VIII (MHR Nr. 2724/17).

The distribution of *L. muralis* Laur. comprises in the neighbourhood of Poland: Hungaria, Slovakia (Košice), southern Moravia, and Bohemia. The Carpathians hindered its extension to the north; therefore the data of Fejerváry and Pongrácz according to which this lizard appears in Poland induce the following remarks: the presence of *L. muralis* Laur. near Maczki, in a sandy and dry environment, may eventually be explained by its immigration in a post-glacial period (warmer than the present) by the „Moravian Gate“ and its extension onto drier areas where it exists till now as a relict form. But could this lizard get by this way into the region of Busko, with many an inadequate environment on its way? Would this species, which prefers warm and dry conditions and avoids moist regions and water, not find a serious barrier in the river Vistula, perhaps even an insuperable one, in its way to the east, to Puławy lying on the right bank of the Vistula? It would be interesting to ascertain — if at all we shall consider this species as belonging to the Polish fauna whether it may be an immigrant from Pannonia or a newcomer from the south-east. Hecht (1928) thinks that Fejerváry's data (1923) on the appearance of *L. muralis* Laur. in Poland („nordwest Galizien“) and near Kielce („Südpolen“) are quite probable. According to this author, it is just the central-European subspecies (*L. muralis muralis* Laur.) that inhabits amongst others Bohemia and Moravia and did not migrate from these countries into Saxony and Silesia. With regard to this enunciation we may remark that the mural

lizard did not get into Saxony because the Erzgebirge was on its way; but why should it not infiltrate into Silesia by the „Moravian Gate", if according to Pongrácz and Fejerváry it should live comparatively near to Silesia, i. e. near Olkusz? Should we therefore not assume that *L. muralis* Laur. passed into our land from Moravia by the „Moravian Gate", similarly to many elements of a steppe character (e. g. the beetle *Dorcadion fulvum* Scop.), during the dry post-glacial period, and kept its ground till to-day in xerothermic biotopes? And what would be the reason of a lack of this lizard in Silesia — are there no dry, warm biotopes with a calcareous substratum, its favourite environment?

It is difficult to doubt the accuracy of the determinations of Fejerváry, specialist in herpetology; however, such an unexpected and improbable ascertainment of the presence of *L. muralis* Laur. in Poland must cause strong doubt and induces the supposition of a mistake, namely a confusion of labels.

According to Kuntze and Noskiewicz (1925) the finding of *L. muralis* Laur. in Poland (Busko, Św. Katarzyna, Puławy) is quite improbable and needs corroboration — i. e. evidence specimens of quite sure origin. As long as we have no such specimens of *L. muralis* Laur. of surely Polish provenience, we cannot reckon this species of lizard with the fauna of Poland.

Natrix tesselata Laur. I happened to hear repeatedly from zoologists the opinion that this snake appears in the Carpathians, namely on the slopes of Mt. Babia Góra; this opinion is based on a paper by Stobiecki (1883). Now, in this paper (on page 7) we find the following sentence: (translated) „According to the opinion of the local population, the fishers in particular, a water snake (? *Tropidonotus hydrus*) should also be found here; it spends its time in crayfish holes and under stones in streams at the feet of Mt. Babia Góra; however, I did not happen to meet it". Thus, basing on quite incompetent enunciations of fishermen, *Natrix tesselata* Laur. got into the literature as an inhabitant of the Carpathians. We may only wonder how uncritically Stobiecki regarded the fishers' declarations as trustworthy. Udziela (1910) quotes this snake

as belonging to the fauna of our Carpathians only on the base of STOBIECKI's data; however, BAYGER (1937) cites this species only from the river Dniestr ravine (U. S. S. R.), saying nothing on its supposed existence on Mt. Babia Góra. According to PRAŽAK (1898) *N. tesselata* LAUR. occurs in the whole Bohemia; but this author says — which contradicts the opinion of SCHREIBER (1912) — that this snake also inhabits the mountains, where it is less numerous than in the lowlands. SCHREIBER (1912) mentions it from countries near Poland, he remarks, however, that „Ins Gebirge geht tesselatus nicht hinauf". MERTENS and MÜLLER (1940) name *N. tesselata* LAUR. nearest to Poland from Czechoslovakia and Hungaria. Nothing is known on the existence of this species north of the Carpathians. Therefore, as the quotation from the paper by STOBIECKI is based on information supplied by quite incompetent agents and as neither the geographical distribution nor biological data support it, *Natrix tesselata* LAUR. should be considered as not belonging to the fauna of Poland in its present boundaries.

Coluber jugularis caspius GMELIN (= *Zamenis caspius* EVERSM.) — the steppe or Ukrainian coluber reaches far to the north on the Balkan Peninsula (BURESCH and ZONKOW, 1934) and along the river Dniepr in the Ukrainian SSR. In our earlier literature we find data on its occurrence in the former Galicia (the southern part of Poland formerly annexed by Austria) — ZAWADZKI (1840) names it from south-eastern Galicia, PIETRUSKI (1847) says that he saw two specimens originating from Podhajce (county Stryj) (U. S. S. R.). BAYGER (1910) excludes this coluber from the Galician fauna; in an other paper (1937) he does not name it as a component of our fauna. According to TIERIENTIEV and ČERNOV (1949) this snake reaches far north in the Ukrainian SSR and the Federal Russian SSR — to the 48th or 49th parallel of northern latitude.

In the newer Polish zoological literature there are no mentions on the occurrence of *C. jugularis caspius* GMELIN in Poland. Basing on the materials of PONGRÁCZ from 1917, FEJERVÁRY (1923) quotes it from the region between Olkusz and Rabsztyn (MHR Nr. 2688). This is news completely

inexpected and improbable. KUNTZE and NOSKIEWICZ (1925) think that the finding of *C. jugularis caspius* Gmelin in Poland is quite enigmatic. The same authors are of the opinion in their zoogeographical study of Podolia (1938) that all data on the supposed occurrence of *C. jugularis caspius* GMELIN in eastern Small-Poland (Galicia) (they discus the species under the name *Zamenis gemonensis* LAUR.) pertain not to the coluber but to Aesculapius's snake (*Elaphe longissima* LAUR.). Northwards of the middle course of the Dniepr river and of Hungaria nothing is known on the coluber, thus the mention by FEJERVÁRY (1923) of its appearance between Olkusz and Rabsztyn is most improbable, notwithstanding the explanation that the species may exist in Poland — this is what FEJERVÁRY writes: „Da *Z. caspius* bis zu den westlichen Grenzen der grossen ungarischen Tiefebene vordringt (sie kommt auch bei Budapest vor), ist ihr Auftreten in Polen" (see foot-note 8) „in zoogeographischer (und ökologischer) Hinsicht sehr wohl zu begreifen". It is quite understandable that this coluber attains Budapest, as the xerothermic region reaches much further north and north-east than that city, but FEJERVÁRY's reasoning — based on its existence in Hungaria — that it occurs in Poland and his explanations of its presence here by zoogeographical and oecological considerations cannot stand criticism. It is difficult to regard the present conditions in the region of Olkusz as similar to, or identical with, the conditions reigning on the Hungarian lowland which is cut off the influences of an Atlantic climate by the chain of the Carpathians. What kind of zoogeographical considerations induced the said author to think the occurrence in Poland of *C. jugularis caspius* GMELIN quite explainable? I confess not to understand it. Could this coluber, a steppe element, persevere so long as the beginning of the moist post-glacial Atlantic period, having penetrated into contemporary Poland's limits in the steppe post-glacial period? I think it could not. The snake could penetrate from the Pannonian regions by the „Moravian Gate" to the north, but it is doubtful whether it could settle here and become an integral component of the Polish fauna. Moreover, similarly as in the case of *Lacerta muralis* LAUR., there is the absence of *C. jugularis caspius*

Gmelin in Silesia, that is, in the nearest neighbourhood of the way leading from the Hungarian lowland to the north between the Carpathians and Sudetians, a way northwards used by many floristic and faunistic elements. To reckon by its biological type, *C. jugularis caspius* Gmelin is a species which could acclimatise in our conditions only with great difficulty. Last not least, we should mention that Fejerváry disposed not of a complete specimen of the coluber, but only of an exuvium which he determined as belonging to the said species. Thus an error in determination could have taken place. There is so little probability — or perhaps it is so improbable — to find this coluber in Poland, in spite of Mertens and Müller (1940) who quote „südliches Polen", that *C. jugularis caspius* Gmelin cannot be regarded as an element of the Polish fauna.

Vipera berus L. According to Pongrácz (1923), the common viper is confined in the former „Congress Kingdom" (see foot-note 8) to the region of Zamość and (?) Pilica. Kuntze and Noskiewicz (1925) rightly remark that this enunciation of Pongrácz does not correspond to reality. It is generally known that this species is widely distributed in the whole Poland, thus also in all east-central Poland („Polen" in the meaning of Pongrácz). With regard to the colour varieties of this viper we may remark that in some localities it appears in all these varieties, i. e. the so-called „typical" grey form the light-brown and dark-brown („copper") ones, and melanotic specimens, nearly quite black without a visible black zigzag on the back. (*V. prester* L.) In May 1952, when being in Dulowa west of Kraków, I saw in a forest having partly wet and partly dry soil about twenty specimens of vipers in all the said colour varieties, during one day. It results from this that a limitation of a given colour to a definite biotope or environment is not always correct. It is accepted in general that the melanotic form (var. *prester* L.) characterises a moist, soggy environment; it is true, this form really appears in such environments but is not confined to them exclusively. I had the possibility to encounter quite black vipers on the dry and sunny slopes of Mt. Breskuł in the Czarnohora chain (eastern Carpathians) at an altitude of about 1500 m above sea-level. In the Tatry Mts., where *V. berus* L. (opposite as in the Czar-

nohora) is not numerous, I met only grey specimens (Kościeliska Valley and Strążyska Valley, at an altitude of about 1400 m above sea-level).

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STRESZCZENIE

Ponieważ tak w polskiej jak i obcej literaturze herpetologicznej znajdują się wzmianki o występowaniu w Polsce kilku gatunków płazów i gadów, których obecność, względnie ich geograficzne rozsiedlenie u nas, może wzbudzać powątpiewanie, postanowił autor tą sprawą bliżej się zająć.

Traszka górska (*Triturus alpestris* LAUR.) zamieszkuje nie tylko okolice górzyste (Karpaty i Sudety), lecz także występuje zdala od tych pasm górskich (ROSZKOWSKI 1913, SUMIŃSKI 1914, FEJERVÁRY 1923, PONGRACZ 1923, PAX 1925, BAYGER 1937, FUDAKOWSKI 1954) w pagórkowatych lub nawet nizinnych stanowiskach (n. p. FUDAKOWSKI 1954 — Dulowa na zachód od Krakowa).

Zasięg wysokościowy w naszych górach tej traszki najprawdopodobniej nie przekracza 1600 m (Tatry).

Odnośnie do salamandry plamistej (*Salamandra salamandra* L.) można zauważyć, że nie jest to gatunek wyłącznie górski, zamieszkuje on bowiem tak okolice górzyste jak i niżowe (ok. Krakowa S. S. 1953, ok. Chrzanowa SKALSKI 1953, Ojców FERENS 1950, ok. Biłgoraja TENENBAUM 1913).

Wszelkie dane o występowaniu u nas salamandry czarnej (*S. atra* LAUR.), elementu typowo wysokogórskiego, są tak problematyczne, nie oparte na okazach dowodowych, względnie oparte na niedokładnych oznaczeniach, że przynależność tego płaza do naszej fauny jest najzupełniej nieprawdopodobna i wobec tego autor nie zalicza go do fauny Polski. Dane z Czechosłowacji też nie dowodzą o jego tam istnieniu jako naturalnego składnika tamtejszej fauny. Wedle SCHREIBERA (1912) salamandra czarna została w Zachodnich Sudetach po stronie czechosłowackiej zaaklimatyzowana.

Rozsiedlenie jaszczurki zielonej (*Lacerta viridis* LAUR.) w Polsce ograniczone jest do stanowisk wyspowych (KUNTZE i NOSKIEWICZ 1925), z których stanowisko w Puszczy Kampinoskiej podane przez WAŁECKIEGO (1883) w drugiej połowie zeszłego wieku zostało zapewne zniszczone przez postęp kultury rolnej i leśnej. Dawne stanowisko pod Płockiem (WAŁECKI l. c.) nie jest pewne; należy też zaznaczyć, że odnośnie do obu tych stanowisk brak jest w naszych zbiorach okazów dowodo-

wych. Podobnie nie posiadamy okazu dowodowego jaszczurki zielonej z ok. Biłgoraja (Tenenbaum 1913).

Dane Pongracza (1923) i Fejervarego (1923) o występowaniu *L. viridis* Laur. na obszarze b. Królestwa Kongresowego wskazują na wyspowe jej u nas rozsiedlenie.

Granice rozsiedlenia jaszczurki zielonej w Polsce podane przez Hechta (1928) nie odpowiadają jej rzeczywistemu u nas rozprzestrzenieniu, przede wszystkim odnosi się to do Polski południowej i Karpat oraz do południowej granicy jej rozsiedlenia w Polsce. Podanie jaszczurki zielonej z Karpat jest najzupełniej nieprawdopodobne jeśli chodzi o ich skłon północny.

Autor poddał krytycznemu omówieniu zagadnienie przynależności do fauny Polski jaszczurki murowej (*Lacerta muralis* Laur.) i połoza (*Coluber jugularis caspius* Gmelin). Z wszelkich danych o istnieniu tych dwu gatunków gadów w Polsce wynika, że dane te nie są oparte na dostatecznie pewnych podstawach, by można było oba te gatunki do naszej fauny zaliczyć. Możliwem jest, że w stosunku do *L. muralis* Laur. może grać rolę u Pongracza (1923) pomieszanie etykiet w zbiorze pochodzącym z b. Król. Kongresowego, a w stosunku do połoza pomyłka w oznaczeniu wylinki; żywego okazu tego węża Pongracz u nas nie znalazł (Fejerváry 1923). Z punktu widzenia zoogeograficznego występowanie u nas tych dwu gatunków jest najzupełniej nieprawdopodobne. Wobec powyższego jaszczurkę murową oraz połoza skreślić należy z spisu gadów krajowych. Odnośnie do materiałów herpetologicznych, zebranych przez Pongracza w Polsce podczas I Wojny Światowej należy zaznaczyć, że uległy one zniszczeniu wraz z całym zbiorem herpetologicznym węgierskiego muzeum przyrodniczego w Budapeszcie podczas wypadków październikowych w r. 1956.

Podobnie jak poprzednio omawiane gatunki należy też skreślić z wykazu naszych gadów węża rybołowa (*Natrix tesselata* Laur.) którego występowanie na naszych stokach Babiej Góry (Stobiecki 1883) jest oparte na opowiadaniach rybaków, a więc ludzi najzupełniej pod tym względem niekompetentnych. Ani w pracach dawniejszych ani też w nowszych nie posiadamy wzmianki o istnieniu tego węża w obecnych granicach Polski.

W związku z podanym przez Pongracza (1923) rozsiedleniem w b. Król. Kongresowym żmii zygzakowatej (*Vipera berus* L.) należy zaznaczyć, że gatunek ten nie jest ograniczony w swym rozprzestrzenieniu w Polsce do okolic Zamościa i Pilicy, jak to podaje Pongracz, lecz, że jest pospolitym w całej Polsce. Przy tej sposobności autor podaje, że wszelkie umiejscowianie różnych odmian barwnych tej żmii w zależności od typu środowiska (biotopu) nie zawsze jest słuszne. Np. czarna (melatotyczna) odmiana *V. berus* L., wedle wielu danych, ma przebywać głównie w środowisku wilgotnym; tymczasem w jednej miejscowości (Dulowa na zachód od Krakowa) w lesie częściowo podmokłym, częściowo suchym, rosnącym na podłożu piaszczystym, spotkał autor tak w jednym jak u drugim środowisku wszystkie barwne odmiany tej żmii, popielate, brunatne i czarne. Czarna odmiana barwna (*V. berus* var. *prester* L.) ma być jakoby związana z środowiskiem górskim, ale nie zawsze tak się sprawa przedstawia, gdyż podczas wieloletnich (25 lat) badań fauny Tatr nigdy nie spotkał tam autor czarnych okazów żmii, a jedynie popielate. Przeciwnie w grupie Czarnohory w Karpatach Wschodnich tak jedna jak i druga odmiana barwna nie była rzadka.

РЕЗЮМЕ

Автор рассматривает критически принадлежност к фауне Польши и их географическое распределение в этой стране некоторых видов земноводных и пресмыкающихся.

Triturus alpestris Laur. распространён не только в горах — Карпаты и Судеты — но также обитает в холмистых и даже низменных местностях, лежащих далеко от гор. Таким образом этот вид имеет в нашей стране также островное распостранение.

Salamandra atra Laur. распространена быть может как акклиматизированный вид только в Чехословацких Судетах (Schreiber 1912), но в северных Карпатах в пределах Польши она безусловно отсутствует. Поэтому она не может быть зачислена к польской фауне.

Salamandra salamandra L. Вид обыкновенный в целых Кар-

патах и Судетах, где он распространён до около 1000 м. н. у. м., но на этой высоте он уже редкий. Известный тоже с холмистых и низменных местностей в окрестности Билгорая и Кракова (Рациборовице и Ойцов) а также и Хшанова (западнее Кракова). Обитает тоже в изолированных од Судетов местностях в Нижней и Верхней Силезии.

Lacerta viridis L. Островное распространение этой ящерицы в Польше обнимает только изолированные ксеротермические биотопы в разных частях страны. Около половины XIX столетия она жила в окрестности Варшавы (Пуща Кампиноска), где она быть может исчезла вследствие изменения характера биотопа полевой и лесной культурой.

Lacerta muralis Laur. и *Zamenis jugularis caspius* Gmelin не проникают севернее Карпатского хребта. Об их принадлежности к польской фауне не имеется никаких достоверных сведений. С зоогеографической а также экологической точки зрения присутствие этих видов в Польше весьма сомнительно и потому автор не зачисляет их к фауне Польши.

Natrix tesselata Laur. в нынешних пределах Польши не водится. Сведение Стобецкого (1883) об его присутствии в Западных Карпатах (Бабья Гора) опирается на совершенно недостоверных высказываниях рыбаков. Поэтому этот вид не может быть зачислен к фауне Польши.

Redaktor zeszytu: Dr Marian Młynarski

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